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State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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February 20, 2001

Randy J. Scott, Plant Manager
Sunnyside Cogeneration Associates
P. O. Box 10
East Carbon, Utah 84520

Re: Conditional Approval of Midterm Review, Sunnyside Cogeneration Associates, Sunnyside Refuse/ Slurry, C/007/035-MT00-2, Outgoing File

Dear :Mr. Scott;

The Division has completed a review of your January 3, 2001 response to the Midterm Review of the Sunnyside Refuse/ Slurry Mine. The information is conditionally approved upon receipt of Three clean copies prepared for incorporation. Once we receive these copies, we will return a stamped incorporated copy to you for insertion into your copy of the Mining and Reclamation Plan. A copy of our Technical Analysis is enclosed for your information.

If you have any questions, please call me at (801) 538-5325, or Joe Helfrich at (801) 538-5290

Sincerely,

Daron R. Haddock

Daron R. Haddock
Permit Supervisor

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cc: Price Field Office
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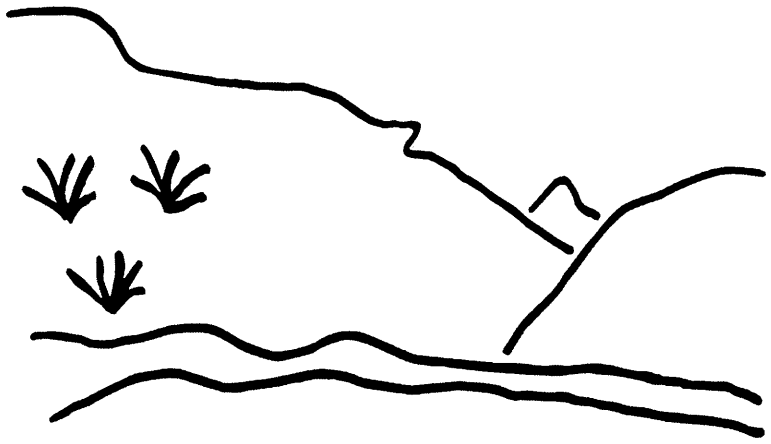
State of Utah



Utah Oil Gas and Mining

Coal Regulatory Program

Sunnyside Mine
Midterm Review
C/007/035-MT00-2
Technical Analysis
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TECHNICAL ANALYSIS

INTRODUCTION

On August 22, 2000 representatives from the Utah Division of Oil, Gas and Mining conducted a field visit to the Sunnyside Cogeneration Associates facility located in Sunnyside, Utah to obtain information relative to four items which were chosen as part of the review process for the midterm permit review and renewal. Item 3 was relative to the use of "best technology currently available" (BTCA) practices at the site.

An initial deficiency review was generated by the UDNR/OGM on September 17, 2000. On October 26, 2000, Sunnyside Cogeneration Associates, and its engineering consultant responded to the deficiencies. A copy of same was received in the Price Field Office on November 6, 2000. The Division's deficiency response was completed on December 5, 2000.

The permittee responded to the December 5, 2000 deficiency document on January 8, 2001. A copy of the January 8, 2001 document was received in the Price Field Office on January 31, 2001.

This technical analysis will address the permittee's response to the requirements of the R645 coal rules as they relate to the BTCA areas at the Sunnyside Cogeneration facility.

The site currently has three areas which implement "best technology currently available" practices. These are:

1) The area north and west of the clear water pond (adjacent to slurry cells #1 & #2).

2) The reclaimed area directly South of the East and West slurry cells known as the "old coarse refuse haul road." This area was reclaimed in 1995; reestablished vegetation and silt fences in strategic locations currently provide sediment control.

3) The third and final BTCA area lies NE of the coarse refuse toe pond, on the east side of the Carbon County Railway line, but on the South side of the drainage to which the seep at the base of the coarse refuse pile (monitoring point known as "CRS") reports. Sediment control in this area is provided by berms, vegetation, catch basins in series, and a silt fence at the flow discharge point (directly to an essentially undisturbed drainage).

OPERATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

Other treatment facilities

The permittee's response to the deficiencies aired on September 26 includes a revised Chapter 7 Hydrology text covering BTCA areas,(received with the October 26 and January 08 responses).

BTCA Area #1

Regulation R645-301-728.310 found on page 700-12 of Chapter 7 discusses BTCA area #1, which as previously noted, is adjacent to the Clear Water Pond and Slurry Cells #1 and #2. As noted, approximately 0.48 cfs flows across the 200 foot permit boundary during the 10 year, 24 hour storm event. The SEDIMOT demonstration included with the text indicates that approximately 1.0453 tons will report to the permit boundary. As previously noted in the Division's 9/26/2000 document, the off permit vegetation is identical in both density and diversity to the permit area. The flat terrain here also assists in the settling out of material prior to the effluent entering any drainage.

Section 742 found on page 700-19 of the revised text discusses the various types of sediment control which have been implemented at Sunnyside Cogeneration Associates including the various diversion ditches, sediment impoundments, and BTCA areas.

The main text relative to ASCA's begins on page 700-20 under **-742.230 thru -742.240 Other Treatment Facilities.** SHEET NUMBER 7-20 shows design details for the numerous types of sediment control methods which are being implemented at the facility. These include silt fences, surface roughening and benching, straw bale check dams, rock check dams, sediment traps, berms, and water bars. Same is P.E. certified by Mr. Scott Carlson.

The permittee's January 8, 2001 response includes revised Sheets Numbered 7-1A, 1B, 1C, and 7-1E.

BTCA area #1, (ASCA area north and west of the Clear Water Pond and Slurry Cells #1 and #2) is depicted on Sheet Number 7-1E. Flow path arrows indicating the direction the sheet flow takes toward the alternate sediment control method implemented. It is now clear where the 200 foot length of permit boundary is located (as indicated within the text, see page 700-12, under BTCA area) i.e., the NW corner of the ASCA. As indicated previously, a demonstration has been provided for the 10 year, 24 hour design event, indicating that 1.0453 tons of sediment will report from a 200 foot length of permit boundary during the design event, (see Results of BTCA Area #1 discussion).

Plate 7-1E depicts three ASC's (or alternative sediment control's). Page 700-21 indicates that BTCA area #1 had 30 linear feet installed in 1989. Although Plate 7-1E now accurately depicts the location of the alternate sediment controls in the field, the type of ASC has not been indicated on the drawing. Paragraph two under **Other Treatment Facilities** (page 700-20, which is presently being permitted) allows the permittee to vary the type of ASC (as shown on Plate 7-20) as site conditions dictate in order to achieve an efficient and cost effective treatment. A demonstration has been provided to meet the requirements of R645-301-742.231.

The effectiveness of the BTCA design will be determined through regular future site inspections by the permittee as well as the Division..

Both Plates 7-1E and 7-20 have been PE certified by a Utah registered professional engineer. The requirements of R645-301-742.231 and R645-301-731.720 (301-512) have been met.

BTCA Area #2

Sheet numbers 7-1A and & 7-1C (revised maps submitted January 8, 2001) specifically delineate the area of the watershed (old coarse refuse haul road reclaimed area) which is implementing BTCA methods as treatment. Alternate sediment control locations are depicted, as are flow paths. A down gradient flow path is depicted. The drawing is P.E. certified and the erosion control design meets the requirements of 731.720 (301-512). Field conditions correspond with the plan depiction. Both Plates 7-1A and 7-1C are PE certified by a Utah registered professional engineer.

A note on Sheet Number 7-1A indicates "APPROXIMATE LOCATION ALTERNATE SEDIMENT CONTROLS (SEE PHOTOS)". One photo has been incorporated on Sheet Number 7-1A, immediately above the title block. Although the intent here is appreciated, the silt fence locations are very difficult to ascertain, unless one knows where they are. If one compares the photo to the plan view drawing, it can be determined that the silt fences seen on the photo are now depicted on the plan view drawing. The vegetation on this reclaimed slope has developed quite well since the reclamation of this area to the point that it is doubtful if a silt fence at the toe of the reclaimed slope would have much effect. A UDNR/OGM field inspection of the area will determine if BTCA methods have been successfully implemented here.

BTCA Area #3

BTCA area #3 lies at the NNW toe of the coarse refuse pile, directly east of the abandoned Carbon County Railway track, and south of the drainage to which flow from the coarse refuse seep reports. Design calculations for the 36-inch culvert which carries both disturbed (this BTCA) and undisturbed flow from the watershed north of the drainage can be found in the Sunnyside Cogeneration and Associates mining and reclamation plan. This design is P.E. certified.

Sheet Number 7-1B (submitted January 8, 2001) shows the area, which is now cross hatched and accurately delineates the area. This is now consistent with the other two BTCA's depicted on Sheet Numbers 7-1A, 7-1C, and 7-1E. Map 7-1B contains a note "APPROXIMATE LOCATION (ASC), and accurately depicts the location of the ASC (which based on field knowledge is an in place silt fence).

This ASC is depicted as approximately 25 feet long. The permittee has also implemented a dugout pond and three retention berms. Flow paths have been indicated on the P.E. certified drawing. The term "dugout pond" was developed through conversation with the assigned Reclamation Specialist at this site.

As part of the BTCA #3 analysis, the permittee has included as Appendix 7-7 three SEDIMOT II demonstrations. These are for different events, but the design event (10 year 24 hour), reports a total sediment yield of 1.1516 tons.

Field inspections of BTCA area #3 will determine if the "best technology currently available" design practice has been effective in this area. As noted above, the approval of this amendment will permit the permittee to vary the type of ASCA (as shown on Plate 7-20) as site conditions dictate in order to achieve an efficient and cost effective treatment.

BTCA Area #3 adequately addresses the requirements of **R645-301-742.231.**

Findings:

The designs, demonstrations, and professional engineer certifications provided by the permittee, as they relate to the three areas being permitted as BTCA's within the C/007/035-MT00 disturbed area, adequately address the requirements of R645-301-742.231.

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